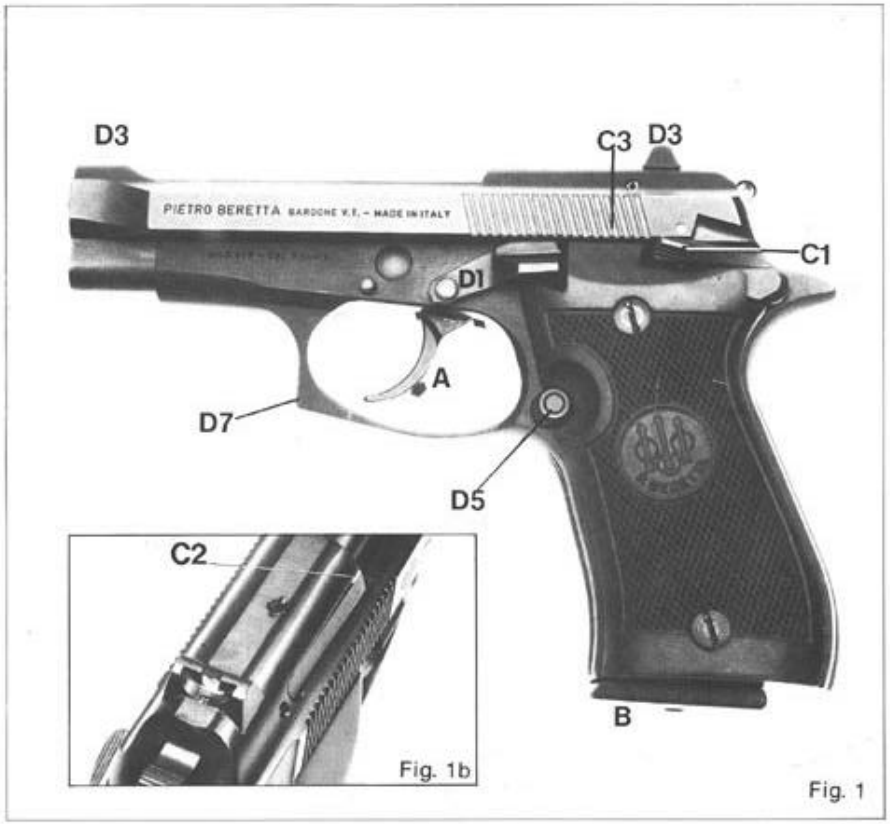
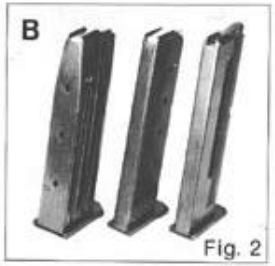
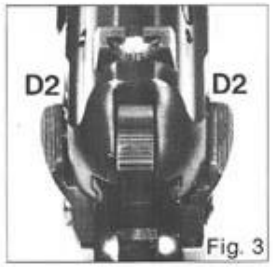
BERETTA

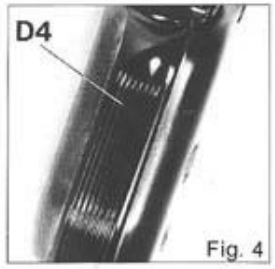
serie 81

Manuale di Istruzione
Instruction Manual
Mode d'Emploi
Manual de Instrucciones









ENGLISH

Figures on pages 3 and 18

NOTICE: The Manufacturer and/or its Local Official Distributors assume no responsibility for product malfuncion or for physical injury or property damage resulting in whole or in part from criminal or negligent use of the product, improper or careless handling, unauthorized modifications, use of defective, improper, hand-loaded, reloaded or remanufactured ammunition, customer abuse or neglect of the product, or other influences beyond manufacturer's direct and immediate control.

WARNING: Always ensure that the safety is fully engaged until ready to fire. A safety is fully engaged only when the safety can move no further into the safe position. A safety which is not fully engaged will not prevent weapon discharge.

WARNING: ALL FIREARMS HAVE LETHAL PONTENTIAL. READ THE BASIC SAFETY RULES CAREFULLY AND UNDERSTAND THEM FULLY BEFORE ATTEMPTING TO USE THIS FIREARM.

In addition to the Basic Safety Rules, there are other Safety Rules pertaining to the loading, unloading, disassembly, assembly and use of this firearm located throughout this manual.

WARNING: READ THE ENTIRE MANUAL CAREFULLY BEFORE USING THIS FIREARM. MAKE SURE THAT ANY PERSON USING OR HAVING ACCESS TO THIS FIREARM READS AND UNDERSTANDS ALL OF THIS MANUAL PRIOR TO USE OR ACCESS.

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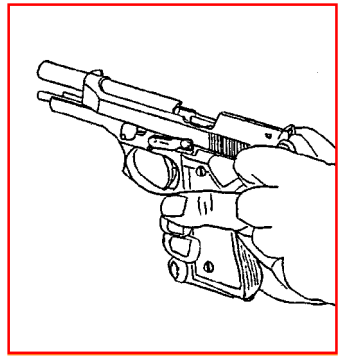
BASIC SAFETY RULES

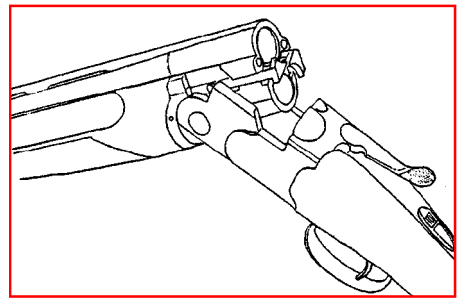
1. NEVER POINT A FIREARM AT SOMETHING THAT IS NOT SAFE TO SHOOT.

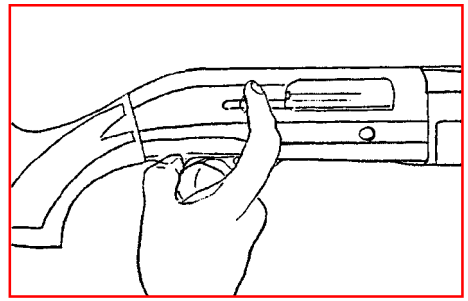
Never let the muzzle of a firearm point at any part of your body or at another person. This is especially important when loading or unloading the firearm. When you are shooting at a target, know what is behind it. Some bullets can travel over a mile. If you miss your target or if the bullet penetrates the target, it is your responsibility to ensure that the shot does not cause unintended injury or damage.

2. ALWAYS TREAT A FIREARM AS IF IT WERE LOADED.

Never assume that a firearm is unloaded. **The only certain way to ensure that a firearm is empty is to open the chamber and visually examine the inside to see if a round is present. Removing the magazine will not guarantee that a pistol is unloaded or cannot fire.** Shotguns and rifles can be checked by cycling or removing all rounds and by then opening the chamber so that a visual inspection of the chamber for any remaining rounds can be made.

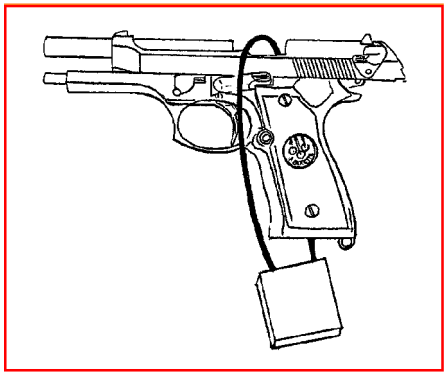


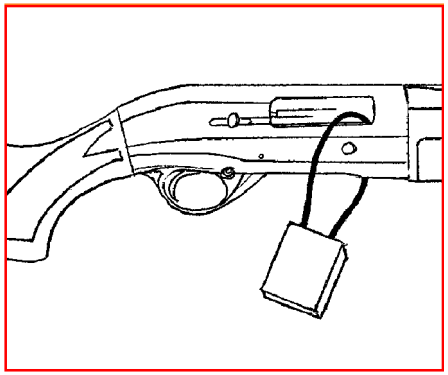




3. STORE YOUR FIREARM SO THAT CHILDREN CANNOT GAIN ACCESS TO IT.

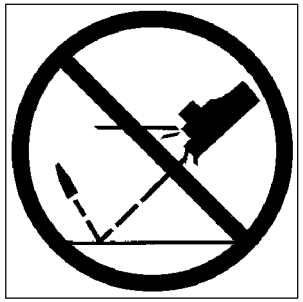
It is your responsibility to insure that children under the age of 18 or other unauthorized persons do not gain access to your firearm. **To reduce the risk of accidents involving children, unload your firearm, lock it and store the ammunition in a separate locked location.** Please note that devices intended to prevent accidents - for example, cable locks, chamber plugs, etc, - may not prevent use or misuse of your firearm by a determined peson. Steel gun safes may be more appropriate to reduce the likelihood of intentional misuse of a firearm by an unauthorized child or person.





4. NEVER SHOOT AT WATER OR AT A HARD SURFACE.

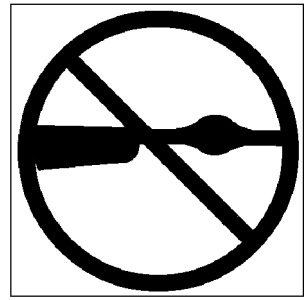
Shooting at the surface of water or at a rock or other hard surface increases the chance of ricochets or fragmentation of the bullet or shot, which can result in the projectile striking an unintended or peripheral target.



5. KNOW THE SAFETY FEATURES OF THE FIREARM YOU ARE USING, BUT REMEMBER: SAFETY DEVICES ARE NOT A SUBSTITUTE FOR SAFE HANDLING PROCEDURES.

Never rely solely on a safety device to prevent an accident. It is imperative that you know and use the safety features of the particular firearm you are handling, but accidents can best be prevented by following the safe handling procedures described in these safety rules and elsewhere in the product manual. To further familiarize yourself with the proper use of this or other firearms, take a Firearms Safety Course taught by an expert in firearms use and safety procedures.

6. PROPERLY MAINTAIN YOUR FIREARM.



Store and carry your firearm so that dirt or lint does not accumulate in the working parts. Clean and oil your firearm, following the instructions provided in this manual, after each use to prevent corrosion, damage to the barrel or accumulation of impurities which can prevent use of the gun in an emergency. Always check the barrel prior to loading to ensure that it is clean and free from obstructions. **Firing against an obstruction can rupture the barrel and injure yourself or others nearby.** In case your hear an unusual noise when shooting, stop firing immediately, ingage the manual safety an unload the firearm. Make sure the chamber is free from any obstruction or possible bullet blocked inside the barrel due to defective or improper ammunition.

7. USE PROPER AMMUNITION.

Only use factory-loaded, new ammunition manufactured to industry specifications: CIP (Europe and elsewhere), SAAMI (U.S.A.). Be certain that each round you use is in the proper caliber or gauge and type for the particular firearm. The caliber or gauge of the firearm is clearly marked on the barrels of shotguns and on the slide or barrel of pistols. The use of reloaded or remanufactured ammunition can increase the likelihood of excessive cartridge pressures, casehead ruptures or other defects in the ammunition which can cause damage to your firearm and injury to yourself or others nearby.

8. ALWAYS WEAR PROTECTIVE GLASSES AND EARPLUGS WHEN SHOOTING.

The chance that gas, gunpowder or metal fragments will blow back and injure a shooter who is firing a gun is rare, but the injury that can be sustained in such circumstances is severe, including the possible loss of eyesight. A shooter must always wear impact resistant shooting glasses when firing any firearm. Earplugs help reduce the chance of hearing damage from shooting.

9. NEVER CLIMB A TREE, FENCE OR OBSTRUCTION WITH A LOADED FIREARM.

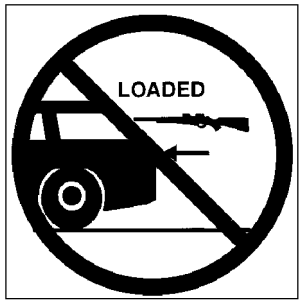
Open and empty the chamber of your firearm before climbing or descending a tree or before climbing a fence or jumping over a ditch or obstruction. Never pull or push a loaded firearm toward yourself or another person.

10. AVOID ALCOHOLIC BEVERAGES OR JUDGMENT OR REFLEX IMPAIRING MEDICATION WHEN SHOOTING.

Do not drink and shoot. If you take medication that can impair motor reactions or judgment, do not handle a firearm while you are under the influence of the medication.

11. NEVER TRANSPORT A LOADED FIREARM.

Unload a firearm before putting it in a vehicle. Hunters and target shooters should load their firearm only at their destination. If you carry a firearm for self-protection, leaving the chamber unloaded can reduce the chance of accidental discharge.



12. LEAD WARNING.

Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.

DESCRIPTION

The series 81 Beretta pistols are semiautomatic firearms designed for personal defence, military and police use shooting practice.
The great fire capacity combined with flawless reliability and anatomical-functional features make of these pistols the most modern in their class.

The Beretta pistols, series 81, have the following characteristics:

A. DOUBLE ACTION: the double action offers the advantages of a revolver. In the rare instance of misfire due to a faulty primer, it is sufficient to pull the trigger again to repeat the percussion on the cartridge and fire the round (mod. 87BB/L.B. excluded).

B. GREAT FIRE CAPACITY

Staggered magazine: 84F = 13 rounds
Single line magazine: 85F, 87BB = 8 rounds; 83F = 7 rounds
The staggered magazine of model 84F, which is no longer than a traditional magazine, almost doubles the capacity of fire. The single line magazine of 85F, 87BB, 83F models gives a tinner grip and reduced overall dimensions.

C. COMPLETE HANDLING SAFETY

C1. Manual safety: the manual safety breaks the connection between the trigger and the sear locks the slide in closed position.
The F models introduce a new **manual safety-decocking lever.** It allows to lower the hammer cocked, chamber loaded, with the maximum safety, stopping it against the interceptor. At the same time the safety locks slide and interrupts the connection between trigger and sear.

C2. Chamber-loaded indicator: when the cartridge is in the chamber, the upper surface of the extractor protrudes and shows red (mod. 87BB excluded). In the dark the protrusion can be felt by touch. It is therefore unnecessary to work the slide to see whether the barrel is loaded.

C3. Automatic firing pin safety: when the trigger is not pulled completely back, a blocking device secures the firing pin and prevents it from moving forward, even if the weapon should fall from a height and strike the ground muzzle-down.

D. FUNCTIONAL AND ANATOMICAL FEATURES

D1. Slide catch when the last round has been fired, the slide remains open thus signalling that the magazine is empty.

D2. Manual safety lever on both sides: allows easier and quicker handling also by left-handed shooters.

D3. Special sights: both front and rear sights (with white dots) are designed for swift location of the target and for bringing it into alignment with the greatest possible facility.

D4. Grooved frame: the front and back straps of the grip are longitudinally grooved to secure a firm hold even with wet hands, or under conditions of rapid, unaimed fire.

D5. Reversible magazine release button (mod. 84F only): It can easily be assembled on the right side of the pistol for left-handed shooters.

D6. Magazine safety (on request): interrupts the trigger-sear connection when the magazine is extracted.

D7. Combat trigger-guard (only "F" models): the trigger-guard is shaped and groved to allow a functional rest of the index finger when shooting with two hands.

Matt finishing with Bruniton (only "F" models):. The anti-glare Bruniton finish guarantees the maximum protection against hard conditions.

Chromium plated barrel and barrel chamber ("F" models) for maximum precision and longer life.

GENERAL OPERATION

The series 81 Beretta pistols are semiautomatic firearms working on the blow-back principle. Upon firing, the pressure developed by the combustion gasses recoils the slide which, during its rearward movement, extracts and ejects the fired cartridge case, cocks the hammer and activates the recoil spring. The slide will then automatically move forward towards the closed position, feeding the next cartridge from the magazine into the chamber.
The slide is designed to stay open after the last round has been fired and ejected.

TECHNICAL FEATURES AND DATA

	84F	85F	83F	87BB	87BB Long Barrel
Caliber	9 mm short			.22 L.R.	
Operation	semi-automatic, blow-back				
Hammer	exposed, double action - single action (mod. 87BB/L.B.)				
Length	172 mm. 6.77 in.		177 mm. 6.96 in.	172 mm. 6.77 in.	225 mm. 8.85 in.
Height	122 mm./4.8 in.			120 mm. / 4.72 in.	
Overall width	35 mm. / 1.37 in.			38 mm. / 1.49 in.	
Grip width	35 mm. 1.37 in.	30 mm. 1.18 in.			
Weight (with empty mag.) approx.	660 gr. 23.3 oz.	620 gr. 21.9 oz.	640 gr. 22.6 oz.	570 gr. 20.1 oz.	660 gr. 23.3 oz.
Barrel lenght	97 mm. 3.81 in.		102 mm. 4 in.	97 mm 3.81 in.	150 mm. 5.9 in.
Rifling	R.H., 6 grooves				
Rifling pitch	250 mm. / 9.84 in.			350 mm. / 13.77 in.	
Front sight	blade, integral with side				
Rear sight	notcher bar, dovetailed to slide				
Line of sight	124 mm. / 4.88 in.				
Safeties	- manual safety breaking the connection between trigger and sear and locking slide in closed position. **Only "F" models:** manual safety-decocking lever (the safety lowers the hammer stopping it against the interceptor, locks slide in closed position and interrupts connection between trigger and sear). - automatic firing pin safety - half-cock position (only "BB" models).				
Magazine	staggered	single line			
	13 shots	8 shots	7 shots	8 shots	
Frame	light alloy				
Slide	held open upon firing of last cartridge				
Finish	Steel components: blued; light alloy components: anodized - matt finish with Bruniton (only "F" models). Checkered walnut grips. Matte black plastic grips ("F" models only).				
Special features	Combat trigger-guard ("F" models only) - chromium Plated barrel and barrel chamber ("F" models only) Light alloy counter weight (87BB/L.B.)				
On request	- magazine safety - plastic grips ("BB" models) - walnut grips ("F" models) - nickel-plating finish				

LOADING AND FIRING

Caution: Always keep the fingers clear of the trigger, whenever you do not intend to fire.
Check that pistol is not already loaded by looking at the chamber-loaded indicator (C2. and fig. 1b).

LOADING THE MAGAZINE

- To load the magazine remove it from the pistol by depressing the magazine release button (fig. 5).
- Hold the magazine in the left hand. With your right hand, place a cartridge on the follower in front of the lips, press down and slide the cartridge home under the lips (fig. 6).
  Repeat until the magazine is fully loaded. Holes on the magazine allow for visual counting of cartridges (fig. 2).

LOADING THE PISTOL AND THE CARTRIDGE CHAMBER

Caution: Always keep the fingers clear of the trigger, whenever you do not intend to fire.

- Push the loaded magazine into the pistol grip completely to insure catch engagement.
- Grasping the slide serrations with thumb and index finger, fully retract and quickly release the slide to load the chamber (fig. 7).

Caution: THE PISTOL IS NOW LOADED, COCKED AND READY TO FIRE.

NOTE: The series 81 Beretta pistols are provided with an **automatic safety** which prevents any movement of the firing pin and is overcome only by pulling on the trigger.

Caution: Always keep the fingers clear of the trigger, whenever you do not intend to fire.

IF NOT READY TO FIRE

Engage the manual safety by simply rotating the manual safety lever with a fully upward thumb pressure. The red warning dot will disappear (The red warning dot can be seen only when the manual safety is disengaged).

Warning: on “F” models, moving the safety lever into the safe position, the hammer is released until it stops against the interceptor (safety-decocking lever).

NOTE: To load another cartridge into the magazine:

- Remove the loaded magazine from the pistol by depressing the magazine release button.
- Insert another cartridge into the magazine.
- Push the loaded magazine into the pistol completely to insure catch engagement.

FIRING

WHEN READY TO FIRE

- Release the manual safety by simply rotating the manual safety lever with a fully downward thumb pressure. The red warning dot can be seen when manual safety is disengaged.
- Aim the pistol and align front and rear sight on target.
- Fire by squeezing the trigger. The pistol now fires in **single action.**

  With pistols mod. “F”, being the safety engaged, hammer is lowered and pistol will fire in **double action.** The pull on the trigger first cocks the hammer and then relases it.
  The discharge will recoil the slide which, in turn, will extract and eject the fired cartridge case, cock the hammer and activate the recoil spring. Then the slide will automatically close, feeding the next cartridge from the magazine into the chamber and the PISTOL IS READY TO FIRE AGAIN.

- When the last round has been fired, the slide remains open (fig. 8).
- To fire again, remove the empty magazine and insert a loaded one.
- Press the slide catch to close the slide, and load the chamber (fig. 9).

Caution: THE PISTOL IS NOW LOADED, COCKED AND READY TO FIRE AGAIN.

With pistols model “F”, to keep pistol, chamber loaded, in safety condition, fully engage the manual safety lever to lower the hammer and stop it against the interceptor.

HOW TO LOWER THE HAMMER to the half-cock position (models “F” excluded)

To have the pistol chamber loaded and hammer uncocked, lower the hammer proceeding as follows (models “BB” only).

Attention: PRACTICE THIS OPERATION WITH UNLOADED PISTOL.
EXERCISE EXTREME CAUTION.

- Point the pistol in a safe direction.
- With thumb retract the hammer spur; depress the trigger while cautiously allowing the hammer to move little forward, under the thumb control, simultaneously remove finger from trigger.
  Then cautiously let the hammer move forward until it stops on the half-cock position (fig. 10 and 11).
- Engage the manual safety by simply rotating the manual safety lever with a fully upward thumb pressure. The red warning dot will disappear. (The red warning dot can be seen only when the manual safety is disengaged).

  With pistols model “F”, to lower the hammer, simply engage manual safety as indicated.

  The **double action** trigger pull makes it possible to fire the pistol quickly with the hammer lowered or in a half-cock position, without the necessity of manual hammer cocking. The pull on the trigger, in fact, first cocks the hammer and then releases it (mod. 87BB/L.B. excluded).

UNLOADING THE PISTOL AND THE CARTRIDGE CHAMBER

- Engage the manual safety. With pistols “F” model, engaging the safety, the hammer is lowered and stopped by the interceptor.
- Depress the magazine release button to remove the magazine from the pistol.
- Release the manual safety and point the pistol in a safe direction.
- Grasping the slide serrations with thumb and index finger, fully retract the slide to remove the chambered cartridge.

  WHEN SURE THE CHAMBER IS EMPTY AND THE CARTRIDGE HAS BEEN EJECTED, quickly release the slide.
- Lower the cocked hammer.

UNLOADING THE MAGAZINE

- To unload the magazine, grasp with one hand the magazine box, bottom down and front end forward. With the tip of the thumb firmly press down on the cartridge rim and push. As the cartridge moves forward, tip it slightly upwards with the index finger.
- Repeat until the magazine is unloaded.

MAINTENANCE

Every time the pistol is fired or at least once a month, cleaning and lubricating is recommended. Start with:

FIELD STRIPPING

Caution: Make sure the pistol is unloaded. if not, unload it following the unloading procedure.

- Remove magazine by depressing magazine release button (fig. 5).
- Hold pistol in the left hand; with right forefinger press disassembly latch release button (fig. 12).
- With right thumb rotate disassembling latch anticlockwise until it stops (fig. 13).
- Pull forward the slide barrel assembly with recoil spring and spring guide (fig. 14).
- Pressing the recoil spring guide head (caution: the recoil spring is under tension) lift the recoil spring guide and let the recoil spring stretch slowly (fig. 15).
- Take out barrel from slide (fig. 16).

Mod. 87BB Long Barrel

To take out barrel from slide, it is necessary first to separate the counterweight from barrel. To do it, using an Allen key of the right size (3 mm.), unscrew the counterweight Allen locking screw (anticlockwise, 3 complete turns).

NO FURTHER DISASSEMBLY IS RECOMMENDED UNLESS DONE BY A COMPETENT GUNSMITH.

CLEANING AND LUBRICATING

BARREL CLEANING AND LUBRICATING

- Spray the brush supplied with gun oil. Insert it into the barrel and slide it backward and forward a few times.
- Dry the barrel by pushing a piece of flannel through with the brush supplied. Keep changing the flannel until it emerges clean from the barrel.
- Lightly oil the inside and outside of the barrel, passing through a clean flannel soaked in gun oil.
- Lightly oil the slides of the barrel base.

SLIDE CLEANING AND LUBRICATING

- Clean slide with a cloth soaked in gun oil paying special attention to slide head, to slide guides and to extractor housing; if necessary use the brush supplied.
- Lightly oil the slide with gun oil.

RECOIL SPRING AND SPRING GUIDE LUBRICATING

- Lightly oil recoil spring and spring guide with gun oil. After long use it may be necessary to first clean with gun oil and the bush supplied.

ASSEMBLING

Assemble following the Field Stripping procedure in reverse order. It is advisable to pay attention to the following points:

- The barrel should rest perfectly against the slide (the extractor must lodge in its groove in the barrel).
- The recoil spring guide head should lodge in the center of its groove in the barrel base.
- When rotating disassembling latch, the slide should be in the closed position (aligned with or beyond the rear side of frame).

HOW TO REVERSE THE MAGAZINE RELEASE BUTTON (for left-handed shooters)

Mod. 84F only

This operation should be carried out by a gunsmith.

- With a suitable screwdriver unscrew and remove the grips.
- Press the back (flat side) of the magazine release button down and away. The magazine release assembly will then drop out.
- Reverse the magazine release assembly and insert the button (grooved side) in position tilting it slightly.

- Holding the button (grooved side) of the magazine release assembly firmly in place, press its flat side and push it until it clicks into place. The operation is done correctly when the magazine slides easily into its housing.
- Replace grips with screws.

TROUBLE SHOOTING, CAUSES AND REMEDIES

TROUBLE SHOOTING	PROBABLE CAUSE	REMEDY
Mis-introduction of a cartridge into the chamber	Warped or defective cartridge	Inspect and replace cartridge
	Dirty or badly lubricated weapon	Clean and lubricate weapon
	Damaged magazine	Replace magazine
Mis-fire	Defective cartridge	Pull the trigger once more or replace cartridge
Mis-extraction or defective extration	Dirty cartridge chamber	Clean and lubricate cartridge chamber
	Defective or dirty ammunition	Replace or clean cartridges
	Damaged extractor spring	Replace extractor spring
	Broken extractor	Replace extractor

NOTA: No one should attempt to make recommended repairs without proper knowledge or training.

Fig. 7

Fig. 8

Fig. 9

Fig. 10

Fig. 11

Fig. 12

Fig. 13

Fig. 14

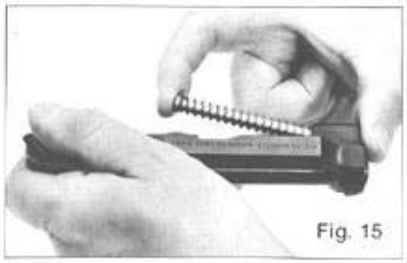


Fig. 15

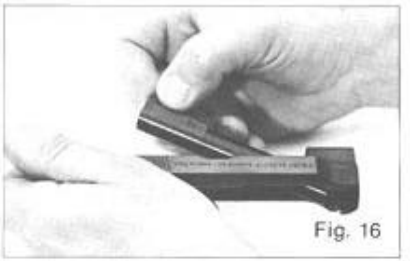


Fig. 16

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